

REMARKS

Claims 1-15 are pending, with claims 1, 9, 14, and 15 being in independent form. By the present amendment, claims 1, 2, 9, 14, and 15 have been amended without adding new matter.

The drawings have been objected to for various informalities. Applicants are submitting with this paper a Request for Approval of Drawing Changes, entry of which would address the Examiner's concerns. The proposed changes to Figs. 1(a), 1(b), 2, 3, 4(a), 4(b), and 5(a), which are shown in red, are believed to address the Examiner's objections. The drawings have also been objected to for various informalities listed on form PTO-948, which are also addressed in the new set of drawings being submitted.

Claims 1-14 stand rejected for anticipation by U.S. Patent No. 6,208,663 to Schramm et al. ("Schramm"). Claim 15 stands rejected for obviousness over Schramm in view of U.S. Patent No. 5,781,533 to Manning et al. ("Manning").

To support a rejection under 35 U.S.C. § 102, each and every feature of the claimed invention must be shown in a single prior art document. *In re Paulsen*, 30 F.3d 1475 (Fed. Cir. 1994); *In re Robertson*, 169 F.3d 743 (Fed. Cir. 1999). The pending claims positively recite limitations which are not disclosed (nor suggested) in the cited document.

Applicant describes a methods and apparatus for control signaling for systems employing link adaptation and incremental redundancy. A link adaptation/incremental redundancy message can be transmitted from a receiving entity to a transmitting entity to inform the transmitting entity of the receiving entity's preference between link adaptation and incremental redundancy based on available resources of the receiving entity, e.g., available memory. Another message, which indicates whether resegmentation should be performed for retransmitted blocks can also be transmitted from a receiving entity to a transmitting entity. Both of these messages can be used by the transmitting entity to determine an appropriate modulation/coding scheme for subsequent transmissions of both original data blocks and retransmitted data blocks. The messages can be used together or independently in either link (uplink or downlink) between a base station and a mobile

station in a radiocommunication system.

Schramm relates to a communication system that supports multiple modulation/coding schemes. When connection quality drops below an acceptable threshold, an alternative modulation/coding scheme which is more resistant to noise and/or interference is used. Flexible resegmentation and mapping of information blocks is supported.

In contrast to amended claims 1, 9, and 14, however, Schramm does not disclose (or suggest) "determining, at said receiving entity, a preferred operating mode between link adaptation and incremental redundancy based on available resources of the receiving entity." Schramm discloses only determinations based on link quality (connection quality) and does not refer to indicating, based on receiver resources, a preferred operating mode according to claims 1, 9, and 14.

Further, Schramm does not disclose (or suggest) "transmitting, over said reverse link, an indicator to said transmitting entity which indicates the preferred operating mode," according to claims 1, 9, and 14.

Accordingly, since Schramm fails to disclose each and every feature of the claimed invention for at least the above reasons, claims 1-14 are not anticipated by Schramm.

Turning to the obviousness rejections, in accordance with the MPEP, the cited documents must teach or suggest all of the claim limitations to establish a prima facie case of obviousness. The obviousness rejections cannot stand at least because the cited document(s) fails to teach or suggest all of the claim limitations.

In light of the discussed above, Schramm also does not disclose or suggest "transmitting a message indicating a preferred operating mode between link adaptation and incremental redundancy based on a status of said memory," as recited in claim 15. In addition, Manning fails to cure these deficiencies.

Accordingly, since the cited documents fail to disclose or suggest all of the claim limitations for at least the above reasons, the obviousness rejections of claim 15 should be withdrawn.

For the foregoing reasons, Applicants believe the application to be in condition for allowance, and respectfully request notice thereof at an early date. The Examiner is encouraged to telephone the undersigned at the below-listed number if, in the Examiner's opinion, such a call would aid in the examination of this application.

Respectfully submitted,

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Date: September 18, 2002

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to Commissioner of Patents and Trademarks, Washington, D.C. 20231, on 9/18/02

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9/18/02
(Date of Signature)

Attachment to Amendment dated September 17, 2002

Marked-Up Copy of Claims

1. (Amended) A method for transferring information over a forward/reverse link pair between a transmitting entity and a receiving entity comprising the steps of: receiving, at said receiving entity, blocks of data over said forward link; determining, at said receiving entity, a quality level of at least one of said received data blocks and said forward link;

determining, at said receiving entity, a preferred operating mode between link adaptation and incremental redundancy based on available resources of the receiving entity; and

transmitting, over said reverse link, an indicator to said transmitting entity which indicates the preferred operating mode [a status of incremental redundancy combining at said receiving entity].

2. (Amended) The method of claim 1, further comprising the step of: transmitting, with said indicator over said reverse link, at least one link quality estimate based on a result of said quality level determining step.

9. (Amended) A method for transferring information over a forward/reverse link pair between a transmitting entity and a receiving entity comprising the steps of: determining, at said receiving entity, a preferred operating mode between link adaptation and incremental redundancy based on available resources of the receiving entity;

transmitting, over said reverse link, an indicator to said transmitting entity which indicates the preferred operating mode;

transmitting, by said transmitting entity, an indicator associated with resegmentation of blocks to be retransmitted by said receiving entity;

selecting a modulation/coding scheme, at said receiving entity, based on said indicator; and

retransmitting, by said receiving entity, data over said reverse link [based]

using said selected modulation/coding scheme.

14. (Amended) A method for transmitting data blocks between a transmitting entity and a receiving entity over a forward and a reverse link comprising the steps of:

transmitting, over said forward link, a first indicator informing said receiving entity of whether resegmentation of retransmitted blocks is preferred;

determining, at said receiving entity, a preferred operating mode between link adaptation and incremental redundancy based on available resources of the receiving entity; and

transmitting over said reverse link, a second indicator informing said transmitting entity of the preferred operating mode [a status of incremental redundancy combining at said receiving entity].

15. (Amended) A receiver comprising:

a processor for processing received data blocks;

a memory for storing received data blocks to be combined with retransmitted versions of said stored data blocks; and

means for transmitting a message indicating a preferred operating mode between link adaptation and incremental redundancy based on a status of said memory.